## RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number:	10/590.579
Source:	IFWP.
Date Processed by STIC:	9/1/06
•	

## ENTERED



**IFWP** 

RAW SEQUENCE LISTING DATE: 09/01/2006 PATENT APPLICATION: US/10/590,579 TIME: 11:48:45

Input Set : A:\21491Y PCT.TXT

Output Set: N:\CRF4\09012006\J590579.raw

```
4 <110> APPLICANT: Merck & Co., Inc.
      6 <120> TITLE OF INVENTION: POLYPEPTIDES FOR INDUCING A PROTECTIVE
             IMMUNE RESPONSE AGAINST STAPHYLOCOCCUS AUREUS
     10 <130> FILE REFERENCE: 21491Y PCT
C--> 12 <140> CURRENT APPLICATION NUMBER: US/10/590,579
C--> 12 <141> CURRENT FILING DATE: 2006-08-22
     12 <150> PRIOR APPLICATION NUMBER: 60/548,660
     13 <151> PRIOR FILING DATE: 2004-02-27
     15 <160> NUMBER OF SEQ ID NOS: 9
     17 <170> SOFTWARE: FastSEQ for Windows Version 4.0
     19 <210> SEQ ID NO: 1
     20 <211> LENGTH: 189
     21 <212> TYPE: PRT
     22 <213> ORGANISM: Artificial Sequence
     24 <220> FEATURE:
     25 <223 > OTHER INFORMATION: truncated derivative of ORF0594
     27 <400> SEQUENCE: 1
     28 Arg Thr Asp Leu Lys Gly Ser Glu Phe Thr Phe Thr Pro Glu Ala Pro
     30 Lys Thr Ile Thr Glu Leu Glu Lys Lys Val Glu Glu Ile Pro Phe Lys
     32 Lys Glu Arg Lys Phe Asn Pro Asp Leu Ala Pro Gly Thr Glu Lys Val
     34 Thr Arg Glu Gly Gln Lys Gly Glu Lys Thr Ile Thr Thr Pro Thr Leu
                                55
     36 Lys Asn Pro Leu Thr Gly Val Ile Ile Ser Lys Gly Glu Pro Lys Glu
                            70
     38 Glu Ile Thr Lys Asp Pro Ile Asn Glu Leu Thr Glu Tyr Gly Pro Glu
                                            90
     40 Thr Ile Ala Pro Gly His Arg Asp Glu Phe Asp Pro Lys Leu Pro Thr
                   100
                                        105
    42 Gly Glu Lys Glu Glu Val Pro Gly Lys Pro Gly Ile Lys Asn Pro Glu
            115
                                    120
     44 Thr Gly Asp Val Val Arg Pro Pro Val Asp Ser Val Thr Lys Tyr Gly
     45 : 130
     46 Pro Val Lys Gly Asp Ser Ile Val Glu Lys Glu Glu Ile Pro Phe Glu
     47 145
     48 Lys Glu Arg Lys Phe Asn Pro Asp Leu Ala Pro Gly Thr Glu Lys Val
                        165
                                            170
    50 Thr Arg Glu Gly Gln Lys Gly Glu Lys Thr Ile Thr Thr
    54 <210> SEQ ID NO: 2
```

55 <211> LENGTH: 235

Input Set : A:\21491Y PCT.TXT

```
56 <212> TYPE: PRT
57 <213> ORGANISM: Artificial Sequence
59 <220> FEATURE:
60 <223> OTHER INFORMATION: His-tagged derivative of SEQ ID NO: 1
62 <400> SEQUENCE: 2
63 Met His His His His His Ser Ser Gly Leu Val Pro Arg Gly Ser
65 Gly Met Lys Glu Thr Ala Ala Lys Phe Glu Arg Gln His Met Asp
67 Ser Pro Asp Leu Gly Thr Asp Asp Asp Lys Ala Met Gly Arg Thr
                               40
69 Asp Leu Lys Gly Ser Glu Phe Thr Phe Thr Pro Glu Ala Pro Lys Thr
                           55
71 Ile Thr Glu Leu Glu Lys Lys Val Glu Glu Ile Pro Phe Lys Lys Glu
                       70
73 Arg Lys Phe Asn Pro Asp Leu Ala Pro Gly Thr Glu Lys Val Thr Arg
75 Glu Gly Gln Lys Gly Glu Lys Thr Ile Thr Thr Pro Thr Leu Lys Asn
              100
                                   105
77 Pro Leu Thr Gly Val Ile Ile Ser Lys Gly Glu Pro Lys Glu Glu Ile
                               120
79 Thr Lys Asp Pro Ile Asn Glu Leu Thr Glu Tyr Gly Pro Glu Thr Ile
                           135
                                               140
81 Ala Pro Gly His Arg Asp Glu Phe Asp Pro Lys Leu Pro Thr Gly Glu
                       150
                                           155
83 Lys Glu Glu Val Pro Gly Lys Pro Gly Ile Lys Asn Pro Glu Thr Gly
                  165
                                       170
85 Asp Val Val Arg Pro Pro Val Asp Ser Val Thr Lys Tyr Gly Pro Val
              180
87 Lys Gly Asp Ser Ile Val Glu Lys Glu Glu Ile Pro Phe Glu Lys Glu
                               200
89 Arg Lys Phe Asn Pro Asp Leu Ala Pro Gly Thr Glu Lys Val Thr Arg
91 Glu Gly Gln Lys Gly Glu Lys Thr Ile Thr Thr
92 225
                       230
95 <210> SEQ ID NO: 3
96 <211> LENGTH: 1240
97 <212> TYPE: PRT
98 <213> ORGANISM: S. aureus
100 <400> SEQUENCE: 3
101 Met Arg Asp Lys Lys Gly Pro Val Asn Lys Arg Val Asp Phe Leu Ser
102 1
103 Asn Lys Leu Asn Lys Tyr Ser Ile Arg Lys Phe Thr Val Gly Thr Ala
105 Ser Ile Leu Ile Gly Ser Leu Met Tyr Leu Gly Thr Gln Glu Ala
107 Glu Ala Ala Glu Asn Asn Ile Glu Asn Pro Thr Thr Leu Lys Asp Asn
109 Val Gln Ser Lys Glu Val Lys Ile Glu Glu Val Thr Asn Lys Asp Thr
```

Input Set : A:\21491Y PCT.TXT

110	65					70					75					80
		Pro	Gln	Gly	Val	Glu	Ala	Lys	Ser	Glu		Thr	Ser	Asn	Lvs	
112				_	85			4		90					95	<b>-</b>
113	Thr	Ile	Glu	His	Glu	Pro	Ser	Val	Lys	Ala	Glu	Asp	Ile	Ser	Lys	Lvs
114				100					105			•		110	•	4
115	Glu	Asp	Thr	Pro	Lys	Glu	٧al	Ala	Asp	Val	Ala	Glu	Val	Gln	Pro	Lvs
116		•	115		•			120	-				125			_2 -
117	Ser	Ser	Val	Thr	His	Asn	Ala	Glu	Thr	Pro	Lys	Val	Arq	Lvs	Ala	Arq
118		130					135				•	140		•		
119	Ser	Val	Asp	Glu	Gly	Ser	Phe	Asp	Ile	Thr	Arq	Asp	Ser	Lys	Asn	Val
	145		-		-	150		_			155	-		•	•	160
121	Val	Glu	Ser	Thr	Pro	Ile	Thr	Ile	Gln	Gly	Lys	Glu	His	Phe	Glu	Gly
122					165					170	•				175	•
123	Tyr	Gly	Ser	Val	Asp	Ile	Gln	Lys	Lys	Pro	Thr	Asp	Leu	Gly	Val	Ser
124	-	_		180	_			-	185			-		190		
125	Glu	Val	Thr	Arg	Phe	Asn	Val	Gly	Asn	Glu	Ser	Asn	Gly	Leu	Ile	Gly
126			195	_				200					205			•
127	Ala	Leu	Gln	Leu	Lys	Asn	Lys	Ile	Asp	Phe	Ser	Lys	Asp	Phe	Asn	Phe
128		210			-		215		_			220	-			
129	Lys	Val	Arg	Val	Ala	Asn	Asn	His	Gln	Ser	Asn	Thr	Thr	Gly	Ala	Asp
130	225					230					235			_		240
131	Gly	Trp	Gly	Phe	Leu	Phe	Ser	Lys	Gly	Asn	Ala	Glu	Glu	Tyr	Leu	Thr
132					245					250					255	
133	Asn	Gly	Gly	Ile	Leu	Gly	Asp	Lys	Gly	Leu	Val	Asn	Ser	Gly	Gly	Phe
134				260					265					270		
135	Lys	Ile	Asp	Thr	Gly	Tyr	Ile	Tyr	Thr	Ser	Ser	Met	Asp	Lys	Thr	Glu
136			275					280					285			
137	Lys	Gln	Ala	Gly	Gln	Gly	Tyr	Arg	Gly	Tyr	Gly	Ala	Phe	Val	Lys	Asn
138		290					295					300				
139	Asp	Ser	Ser	Gly	Asn	Ser	Gln	Met	Val	Gly	Glu	Asn	Ile	Asp	Lys	Ser
140	305					310					315					320
141	Lys	Thr	Asn	Phe		Asn	Tyr	Ala	Asp	Asn	Ser	Thr	Asn	Thr	Ser	Asp
142					325					330					335	
143	Gly	Lys	Phe	His	Gly	Gln	Arg	Leu	Asn	Asp	Val	Ile	Leu	Thr	Tyr	Val
144				340					345					350		
145	Ala	Ser	Thr	Gly	Lys	Met	Arg	Ala	Glu	Tyr	Ala	Gly	Lys	Thr	Trp	Glu
146			355					360					365			
147	Thr	Ser	Ile	Thr	Asp	Leu	Gly	Leu	Ser	Lys	Asn	Gln	Ala	Tyr	Asn	Phe
148		370					375					380				
149	Leu	Ile	Thr	Ser	Ser	Gln	Arg	$\mathtt{Trp}$	Gly	Leu	Asn	Gln	Gly	Ile	Asn	Ala
150						390					395					400
	Asn	Gly	Trp	Met	Arg	Thr	Asp	Leu	Lys	Gly	Ser	Glu	Phe	Thr	Phe	Thr
152					405					410					415	
	Pro	Glu	Ala	Pro	Lys	Thr	Ile	Thr		Leu	Glu	Lys	Lys	Val	Glu	Glu
154				420					425					430		
	Ile	Pro		Lys	Lys	Glu	Arg	Lys	Phe	Asn	Pro	Asp		Ala	Pro	Gly
156	_		435					440	_				445			
	Thr		Lys	Val	Thr	Arg		Gly	Gln	Lys	Gly	Glu	Lys	Thr	Ile	Thr
158		450					455					460				

Input Set : A:\21491Y PCT.TXT

159	Thr	Pro	Thr	Leu	Lvs	Asn	Pro	Leu	Thr	Glv	Val	Ile	Ile	Ser	Lvs	Glv
	465				-1-	470				1	475				-10	480
161	Glu	Pro	Lys	Glu	Glu	Ile	Thr	Lys	Asp	Pro	Ile	Asn	Glu	Leu	Thr	Glu
162			_		485			_	_	490					495	
163	Tyr	Gly	${\tt Pro}$	Glu	Thr	Ile	Ala	Pro	Gly	His	Arg	Asp	Glu	Phe	Asp	Pro
164				500					505					510		
165	Lys	Leu	${\tt Pro}$	Thr	Gly	Glu	Lys	Glu	Glu	Val	Pro	Gly	Lys	Pro	Gly	Ile
166			515					520					525			
167	Lys	Asn	Pro	Glu	Thr	Gly	Asp	Val	Val	Arg	Pro	Pro	Val	Asp	Ser	Val
168		530					535					540				
		Lys	Tyr	Gly	Pro		Lys	Gly	Asp	Ser		Val	Glu	Lys	Glu	
	545					550					555			_		560
	Ile	Pro	Phe	Glu	-	Glu	Arg	Lys	Phe		Pro	Asp	Leu	Ala		Gly
172	1	~1	_		565	_	~1	~ 7	~7	570	~ 7	~ 7	_	1	575	1
	Thr	GIU	ьys	Val	Thr	Arg	GIU	GIY		ьуs	GLY	GIu	Lys		шe	Thr
174	mb ~	Dwa	mb so	580	T	7 ~~	Dwa	T	585	~1	77-1	т1.	т1 -	590	T	<b>~</b> 1
	Thr	Pro	595	Leu	гуѕ	ASII	PLO	600	Thr	GIY	vai	тте		ser	гÀг	GIA
176	Cl.	Dro		Glu	Clu	Tla	Thr		7 cn	Dro	т1.	7 an	605	Τ ου	Thr	C1.,
178	GIU	610	цур	Giu	Giu	116	615	пуъ	Asp	PIO	116	620	Giu	ьец	1111	GIU
	Tyr		Pro	Glu	Thr	Tle		Pro	Glv	Hic	Δra		Glu	Dhe	Δen	Pro
	625	Gry	110	Olu	1111	630		110	OLY	1115	635	LDD	Olu	1110	пор	640
		Leu	Pro	Thr	Glv		Lvs	Glu	Glu	Val		Glv	Lvs	Pro	Glv	
182	-2				645		-1-			650					655	
183	Lys	Asn	Pro	Glu	Thr	Gly	Asp	Val	Val	Arq	Pro	Pro	Val	Asp	Ser	Val
184	-			660		-	_		665	_				670		
185	Thr	Lys	Tyr	Gly	Pro	Val	Lys	Gly	Asp	Ser	Ile	Val	Glu	Lys	Glu	Glu
186			675					680					685			
187	Ile	Pro	Phe	Lys	Lys	Glu	Arg	Lys	Phe	Asn	Pro	Asp	Leu	Ala	Pro	Gly
188		690					695					700				
189	Thr	Glu	Lys	Val	Thr	Arg	Glu	Gly	Gln	Lys	Gly	Glu	Lys	Thr	Ile	
	705					710			_	_	715	_	_			720
	Thr	Pro	Thr	Leu	_	Asn	Pro	Leu	Thr	_	Glu	Ile	Ile	Ser	-	Gly
192	~ 7	_	_	~3	725		_,	_	_	730		_		_	735	
	GIu	Ser	ьуs	Glu	GIu	ile	Thr	ьys		Pro	lle	Asn	GIu		Thr	GIu
194	TT	<b>~1</b>	Dwo	740 Glu	mh se	T1.	mb so	Dwa	745	77 ÷ ~	7	7	a1	750	7	D
196	TÀT	GIA	755	GIU	IIII	тте	1111	760	GIY	HIS	Arg	ASD	765	Pne	Asp	PIO
	Lvc	Lou		Thr	C1.	C111	Tara		C111	v-1	Dro	C111		Dro	C117	т
	цуѕ				Gry		_		GIU	vai		780		PIO	Gry	116
				Glu					Val	Δra				Asn	Ser	Val
	785				****	790	1150	vai	• 44 1	****9	795	110	V 44 I	110 D		800
		Lvs	Tvr	Gly	Pro		Lvs	Glv	Asp	Ser		Val	Glu	Lvs	Glu	
202	<b></b>	_1 =	-1 <b>-</b>	1	805		_1_	1		810				_, _	815	
	Ile	Pro	Phe	Lys		Glu	Ara	Lys	Phe		Pro	Asp	Leu	Ala		Glv
204				820	-			-	825			-		830		-
205	Thr	Glu	Lys	Val	Thr	Arg	Glu	Gly	Gln	Lys	Gly	Glu	Lys	Thr	Ile	Thr
206			835			J		840		-	-		845			
207	Thr	Pro	Thr	Leu	Lys	Asn	Pro	Leu	Thr	Gly	Glu	Ile	Ile	Ser	Lys	Gly

Input Set : A:\21491Y PCT.TXT

		850					855					860				
			Lvc	Clu	Clu	Tla	Thr	Larc	λαν	Dro	Tlo		Clu	LON	Thr	Clu
	865	261	цуз	GIU	Gru	870	1111	цуз	тэр	110	875	NOII	GIU	nea	TIIL	880
		~1	Dwo	C1	Th.		Thr	Dro	C1	uic		7	~1··	Dho	7 ~~	
	Tyr	GIA	PIO	GIU		тте	1111	PIO	GIY		Arg	Asp	GIU	Pne		PIO
212	_	_	_	1	885	~-3	_	~-3		890	_	~-3	_	_	895	
	Lys	Leu	Pro		GLY	GIu	Lys	GIu		Val	Pro	GLY	ьуs		GLY	11e
214				900					905					910		_
215	Lys	Asn	Pro	Glu	Thr	Gly	Asp	Val	Val	Arg	Pro	Pro	Val	Asp	Ser	Val
216			915					920					925			
217	Thr	Lys	Tyr	Gly	Pro	Val	Lys	Gly	Asp	Ser	Ile	Val	Glu	Lys	Glu	Glu
218		930					935					940				
219	Ile	Pro	Phe	Glu	Lys	Glu	Arg	Lys	Phe	Asn	Pro	Asp	Leu	Ala	Pro	Gly
220	945					950					955					960
221	Thr	Glu	Lys	Val	Thr	Arg	Glu	Gly	Gln	Lys	Gly	Glu	Lys	Thr	Ile	Thr
222			_		965	_		_		970	_		-		975	
223	Thr	Pro	Thr	Leu	Lys	Asn	Pro	Leu	Thr	Gly	Glu	Ile	Ile	Ser	Lys	Gly
224				980	•				985	-				990	-	-
	Glu	Ser	Lvs		Glu	Ile	Thr	Lvs	Asp	Pro	Val	Asn	Glu	Leu	Thr	Glu
226			995					1000					1005			
	Phe	Glv		Glu	Lvs	Tle	Pro			His	Lvs	Asp			Asp	Pro
228		1010	_	014	_,_		1015		<b>-</b>	*****	_,_	1020				
	Δen			Thr	Acn	Gln	Thr		T.vc	va 1	Pro			Pro	Glv	Tle
	1025		110	1111	пор	1030		Olu	цу	vai	1035	_	Lys	110	O <sub>T</sub> y	1040
			Dro	λcn	ጥኩሎ		Lys	17-1	Tla	Glu			17 a 1	λen	λαη	
231	цур	ASII	PIO	Map	1045	_	цуз	vai	116	1050		FIO	vai	ASP	1059	
	т1.	T	TI i a	C1			Thr	C1	Thr			Th-	Tira	Th.∽		
												TIII	TIAP			GIU
		_,	*****	_		цуз	1111	CLY					-			
234		_		1060	)	_		_	1065	5			_	1070	)	
234 235		_	Phe	1060 Glu	)	_	Arg	Glu	1069 Phe	5			Leu	1070 Gln	)	
234 235 236	Ile	Pro	Phe	1060 Glu 5	) Thr	Lys	Arg	Glu 1080	1069 Phe	Asn	Pro	Lys	Leu 1085	1070 Gln	) Pro	Gly
234 235 236 237	Ile	Pro Glu	Phe 1075 Arg	1060 Glu 5	) Thr	Lys	Arg Glu	Glu 1080 Gly	1069 Phe	Asn	Pro	Lys Ser	Leu 1085 Lys	1070 Gln	) Pro	Gly
234 235 236 237 238	Ile Glu	Pro Glu 1090	Phe 1075 Arg	1060 Glu 5 Val	Thr Lys	Lys Gln	Arg Glu 1095	Glu 1080 Gly	1069 Phe ) Gln	Asn Pro	Pro Gly	Lys Ser 1100	Leu 1085 Lys	1070 Gln Thr	Pro Ile	Gly Thr
234 235 236 237 238 239	Ile Glu Thr	Pro Glu 1090 Pro	Phe 1075 Arg	1060 Glu 5 Val	Thr Lys	Lys Gln Asn	Arg Glu 1099 Pro	Glu 1080 Gly	1069 Phe ) Gln	Asn Pro	Pro Gly Glu	Lys Ser 1100 Lys	Leu 1085 Lys	1070 Gln Thr	Pro Ile	Gly Thr Gly
234 235 236 237 238 239 240	Ile Glu Thr	Pro Glu 1090 Pro	Phe 1075 Arg ) Ile	1060 Glu 5 Val Thr	Thr Lys Val	Lys Gln Asn 1110	Arg Glu 1095 Pro	Glu 1080 Gly Leu	1069 Phe ) Gln Thr	Asn Pro Gly	Pro Gly Glu	Lys Ser 1100 Lys	Leu 1085 Lys ) Val	1070 Gln Thr	Pro Ile Glu	Gly Thr Gly 1120
234 235 236 237 238 239 240 241	Ile Glu Thr	Pro Glu 1090 Pro	Phe 1075 Arg ) Ile	1060 Glu 5 Val Thr	Thr Lys Val Glu	Lys Gln Asn 1110	Arg Glu 1099 Pro	Glu 1080 Gly Leu	1069 Phe ) Gln Thr	Asn Pro Gly Pro	Pro Gly Glu 1115 Val	Lys Ser 1100 Lys	Leu 1085 Lys ) Val	1070 Gln Thr	Pro Ile Glu Val	Gly Thr Gly 1120 Glu
234 235 236 237 238 239 240 241 242	Ile Glu Thr 1109 Gln	Pro Glu 1090 Pro Pro	Phe 1075 Arg ) Ile Thr	1060 Glu Wal Thr	Thr Lys Val Glu 112	Lys Gln Asn 1110 Ile	Arg Glu 1095 Pro ) Thr	Glu 1080 Gly Leu Lys	1069 Phe ) Gln Thr	Asn Pro Gly Pro	Pro Gly Glu 1119 Val	Lys Ser 1100 Lys Asp	Leu 1089 Lys ) Val	1070 Gln Thr Gly	Pro Ile Glu Val 1139	Gly Thr Gly 1120 Glu
234 235 236 237 238 239 240 241 242	Ile Glu Thr 1109 Gln	Pro Glu 1090 Pro Pro	Phe 1075 Arg ) Ile Thr	1060 Glu Wal Thr	Thr Lys Val Glu 112	Lys Gln Asn 1110 Ile	Arg Glu 1095 Pro	Glu 1080 Gly Leu Lys	1069 Phe ) Gln Thr	Asn Pro Gly Pro	Pro Gly Glu 1119 Val	Lys Ser 1100 Lys Asp	Leu 1089 Lys ) Val	1070 Gln Thr Gly	Pro Ile Glu Val 1139	Gly Thr Gly 1120 Glu
234 235 236 237 238 239 240 241 242 243 244	Ile Glu Thr 1109 Gln Phe	Pro Glu 1090 Pro Pro Gly	Phe 1075 Arg Ile Thr	1060 Glu Val Thr Glu Glu 1140	Thr Lys Val Glu 1125 Lys	Lys Gln Asn 1110 Ile Pro	Arg Glu 1095 Pro Thr	Glu 1080 Gly Leu Lys	1069 Phe Oln Thr Gln Pro 1149	Asn Pro Gly Pro 1130 Lys	Gly Glu 1119 Val Gly	Lys Ser 1100 Lys Asp Pro	Leu 1085 Lys Val Lys	1070 Gln Thr Gly Ile Asn 1150	Pro Ile Glu Val 1135 Pro	Gly Thr Gly 1120 Glu Glu Glu
234 235 236 237 238 239 240 241 242 243 244	Ile Glu Thr 1109 Gln Phe	Pro Glu 1090 Pro Pro Gly	Phe 1075 Arg Ile Thr	1060 Glu Val Thr Glu Glu 1140	Thr Lys Val Glu 1125 Lys	Lys Gln Asn 1110 Ile Pro	Arg Glu 1095 Pro ) Thr	Glu 1080 Gly Leu Lys	1069 Phe Oln Thr Gln Pro 1149	Asn Pro Gly Pro 1130 Lys	Gly Glu 1119 Val Gly	Lys Ser 1100 Lys Asp Pro	Leu 1085 Lys Val Lys Glu	1070 Gln Thr Gly Ile Asn 1150	Pro Ile Glu Val 1135 Pro	Gly Thr Gly 1120 Glu Glu Glu
234 235 236 237 238 239 240 241 242 243 244 245 246	Ile Glu Thr 1109 Gln Phe Lys	Pro Glu 1090 Pro Fro Gly Pro	Phe 1075 Arg Ile Thr Gly Ser 1155	Thr Glu Glu Thr Glu Arg	Thr Lys Val Glu 1125 Lys Pro	Lys Gln Asn 1110 Ile Pro	Arg Glu 1095 Pro Thr Lys His	Glu 1080 Gly Leu Lys Asp	Thr Gln Pro 1145 Ser	Asn Pro Gly Pro 1130 Lys Gly	Gly Glu 1115 Val Gly Gly Pro	Ser 1100 Lys Asp Pro	Leu 1085 Lys Val Lys Glu Asn 1165	IO70 Gln Thr Gly Ile Asn 1150 Pro	Pro Ile Glu Val 1135 Pro Asn	Gly Thr Gly 1120 Glu Glu Glu Asn
234 235 236 237 238 239 240 241 242 243 244 245 246	Ile Glu Thr 1109 Gln Phe Lys	Pro Glu 1090 Pro Fro Gly Pro	Phe 1075 Arg Ile Thr Gly Ser 1155	Thr Glu Glu Thr Glu Arg	Thr Lys Val Glu 1125 Lys Pro	Lys Gln Asn 1110 Ile Pro	Arg Glu 1095 Pro Thr Lys His	Glu 1080 Gly Leu Lys Asp	Thr Gln Pro 1145 Ser	Asn Pro Gly Pro 1130 Lys Gly	Gly Glu 1115 Val Gly Gly Pro	Ser 1100 Lys Asp Pro	Leu 1085 Lys Val Lys Glu Asn 1165	IO70 Gln Thr Gly Ile Asn 1150 Pro	Pro Ile Glu Val 1135 Pro Asn	Gly Thr Gly 1120 Glu Glu Glu Asn
234 235 236 237 238 239 240 241 242 243 244 245 246	Ile Glu Thr 1109 Gln Phe Lys	Pro Glu 1090 Pro Fro Gly Pro	Phe 1075 Arg ) Ile Thr Gly Ser 1155 Leu	Thr Glu Glu Thr Glu Arg	Thr Lys Val Glu 1125 Lys Pro	Lys Gln Asn 1110 Ile Pro	Arg Glu 1095 Pro Thr	Glu 1080 Gly Leu Lys Asp Pro 1160 Ala	Thr Gln Pro 1145 Ser	Asn Pro Gly Pro 1130 Lys Gly	Gly Glu 1115 Val Gly Gly Pro	Ser 1100 Lys Asp Pro	Leu 1085 Lys Val Lys Glu Asn 1165 Pro	IO70 Gln Thr Gly Ile Asn 1150 Pro	Pro Ile Glu Val 1135 Pro Asn	Gly Thr Gly 1120 Glu Glu Glu Asn
234 235 236 237 238 239 240 241 242 243 244 245 246 247 248	Ile Glu Thr 1109 Gln Phe Lys Pro	Pro Glu 1090 Pro Gly Pro Gly 1170	Phe 1075 Arg ) Ile Thr Gly Ser 1155 Leu	Thr Glu Glu 1140 Arg Ser	Thr Lys Val Glu 1129 Lys Pro	Lys Gln Asn 1110 Ile Pro Thr	Glu 1095 Pro Thr Lys His	Glu 1080 Gly Leu Lys Asp Pro 1160 Ala	1069 Phe Cln Thr Gln Pro 1149 Ser Lys	Asn Pro Gly Pro 1130 Lys Gly Pro	Gly Glu 1119 Val Gly Pro Asn	Lys Ser 1100 Lys Asp Pro Val Gly 1180	Leu 1085 Lys Val Lys Glu Asn 1165 Pro	1070 Gln Thr Gly Ile Asn 1150 Pro Val	Pro Ile Glu Val 1139 Pro Asn	Gly Thr Gly 1120 Glu Glu Asn Ser
234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249	Ile Glu Thr 1109 Gln Phe Lys Pro Met	Pro Glu 1090 Pro Gly Pro Gly 1170 Asp	Phe 1075 Arg ) Ile Thr Gly Ser 1155 Leu	Thr Glu Glu 1140 Arg Ser	Thr Lys Val Glu 1129 Lys Pro	Lys Gln Asn 1110 Ile Pro Thr	Glu 1095 Pro Thr Lys His Arg 1175 Val	Glu 1080 Gly Leu Lys Asp Pro 1160 Ala	1069 Phe Cln Thr Gln Pro 1149 Ser Lys	Asn Pro Gly Pro 1130 Lys Gly Pro	Gly Glu 1119 Val Gly Pro Asn	Lys Ser 1100 Lys Asp Pro Val Gly 1180 Ile	Leu 1085 Lys Val Lys Glu Asn 1165 Pro	1070 Gln Thr Gly Ile Asn 1150 Pro Val	Pro Ile Glu Val 1139 Pro Asn	Gly Thr Gly 1120 Glu Glu Asn Ser
234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250	Ile Glu Thr 1109 Gln Phe Lys Pro Met 1189	Pro Glu 1090 Pro Gly Pro Gly 1170 Asp	Phe 1075 Arg ) Ile Thr Gly Ser 1155 Leu )	Thr Glu Glu 1140 Arg Ser Asn	Thr Lys Val Glu 1129 Lys Pro Lys Asp	Lys Gln Asn 1110 Ile Pro Thr Asp Lys 1190	Glu 1095 Pro Thr Lys His Arg 1175 Val	Glu 1080 Gly Leu Lys Asp Pro 1160 Ala	1069 Phe Offin Thr Gln Pro 1149 Ser Lys Lys	Asn Pro Gly Pro 1130 Lys Gly Pro Ser	Pro Gly Glu 1115 Val Gly Pro Asn Lys 1195	Lys Ser 1100 Lys Asp Pro Val Gly 1180	Leu 1085 Lys Val Lys Glu Asn 1165 Pro	1070 Gln Thr Gly Ile Asn 1150 Pro Val	Pro Ile Glu Val 1135 Pro Asn His	Gly Thr Gly 1120 Glu Glu Asn Ser Ser 1200
234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251	Ile Glu Thr 1109 Gln Phe Lys Pro Met 1189	Pro Glu 1090 Pro Gly Pro Gly 1170 Asp	Phe 1075 Arg ) Ile Thr Gly Ser 1155 Leu )	Thr Glu Glu 1140 Arg Ser Asn	Thr Lys Val Glu 1129 Lys Pro Lys Asp Glu	Lys Gln Asn 1110 Ile Pro Thr Asp Lys 1190 Lys	Glu 1095 Pro Thr Lys His Arg 1175 Val	Glu 1080 Gly Leu Lys Asp Pro 1160 Ala	1069 Phe Offin Thr Gln Pro 1149 Ser Lys Lys	Asn Pro Gly Pro 1130 Lys Gly Pro Ser Glu	Pro Gly Gly Pro Asn Lys 1199 Leu	Lys Ser 1100 Lys Asp Pro Val Gly 1180	Leu 1085 Lys Val Lys Glu Asn 1165 Pro	1070 Gln Thr Gly Ile Asn 1150 Pro Val	Pro Ile Glu Val 1135 Pro Asn His Glu Gly	Gly Thr Gly 1120 Glu Glu Asn Ser Ser 1200 Leu
234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252	Ile Glu Thr 1109 Gln Phe Lys Pro Met 1189 Val	Pro Glu 1090 Pro Gly Pro Gly 1170 Asp	Phe 1075 Arg Ile Thr Gly Ser 1155 Leu Lys	Thr Glu Glu 1140 Arg Ser Asn	Thr Lys Val Glu 1125 Lys Pro Lys Asp Glu 1205	Lys Gln Asn 1110 Ile Pro Thr Asp Lys 1190 Lys	Arg Glu 1095 Pro Thr Lys His Arg 1175 Val	Glu 1080 Gly Leu Lys Asp Pro 1160 Ala Lys	1069 Phe Offin Thr Gln Pro 1149 Ser Lys Lys Ala	Asn Pro Gly Pro 1130 Lys Gly Pro Ser Glu 1210	Pro Gly Glu 1119 Val Cly Pro Asn Lys 1199 Leu	Lys Ser 1100 Lys Asp Pro Val Gly 1180 Ile	Leu 1085 Lys Val Lys Glu Asn 1165 Pro Ala	Thr Gly Ile Asn 1150 Pro Val Lys	Pro Ile Glu Val 1135 Pro Asn His Glu Gly 1215	Gly Thr Gly 1120 Glu Glu Asn Ser 1200 Leu
234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 250 251 252 253	Ile Glu Thr 1109 Gln Phe Lys Pro Met 1189 Val	Pro Glu 1090 Pro Gly Pro Gly 1170 Asp	Phe 1075 Arg Ile Thr Gly Ser 1155 Leu Lys	Thr Glu Glu 1140 Arg Ser Asn Gln Gln	Thr Lys Val Glu 1125 Lys Pro Lys Asp Glu 1205 Lys	Lys Gln Asn 1110 Ile Pro Thr Asp Lys 1190 Lys	Glu 1095 Pro Thr Lys His Arg 1175 Val	Glu 1080 Gly Leu Lys Asp Pro 1160 Ala Lys	1069 Phe Offin Thr Gln Pro 1149 Ser Lys Lys Ala Phe	Asn Pro Gly Pro 1130 Lys Gly Pro Ser Glu 1210 Ser	Pro Gly Glu 1119 Val Cly Pro Asn Lys 1199 Leu	Lys Ser 1100 Lys Asp Pro Val Gly 1180 Ile	Leu 1085 Lys Val Lys Glu Asn 1165 Pro Ala	1070 Gln Thr Gly Ile Asn 1150 Pro Val Lys Thr Gly	Pro Ile Glu Val 1135 Pro Asn His Glu Gly 1215 Ile	Gly Thr Gly 1120 Glu Glu Asn Ser 1200 Leu
234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 250 251 252 253 254	Ile Glu Thr 1109 Gln Phe Lys Pro Met 1189 Val Glu	Pro Glu 1090 Pro Gly Pro Gly 1170 Asp Ala Ser	Phe 1075 Arg Ile Thr Gly Ser 1155 Leu Lys Asn	Thr Glu 1140 Arg Ser Asn Gln Gln 1220	Thr Lys Val Glu 1125 Lys Pro Lys Asp Glu 1205 Lys	Lys Gln Asn 1110 Ile Pro Thr Asp Lys 1190 Lys Gly	Arg Glu 1095 Pro Thr Lys His Arg 1175 Val Lys Lys	Glu 1080 Gly Leu Lys Asp Pro 1160 Ala Lys Arg	1069 Phe Offin Thr Gln Pro 1149 Ser Lys Lys Ala	Asn Pro Gly Pro 1130 Lys Gly Pro Ser Glu 1210 Ser	Pro Gly Glu 1119 Val Cly Pro Asn Lys 1199 Leu	Lys Ser 1100 Lys Asp Pro Val Gly 1180 Ile	Leu 1085 Lys Val Lys Glu Asn 1165 Pro Ala	Thr Gly Ile Asn 1150 Pro Val Lys	Pro Ile Glu Val 1135 Pro Asn His Glu Gly 1215 Ile	Gly Thr Gly 1120 Glu Glu Asn Ser 1200 Leu
234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 250 251 252 253 254	Ile Glu Thr 1109 Gln Phe Lys Pro Met 1189 Val Glu	Pro Glu 1090 Pro Gly Pro Gly 1170 Asp Ala Ser	Phe 1075 Arg Ile Thr Gly Ser 1155 Leu Lys Asn	Thr Glu 1140 Arg Ser Asn Gln 1220 Leu	Thr Lys Val Glu 1125 Lys Pro Lys Asp Glu 1205 Lys	Lys Gln Asn 1110 Ile Pro Thr Asp Lys 1190 Lys Gly	Arg Glu 1095 Pro Thr Lys His Arg 1175 Val	Glu 1080 Gly Leu Lys Asp Pro 1160 Ala Lys Arg	1069 Phe Offin Thr Gln Pro 1149 Ser Lys Lys Ala Phe 1229	Asn Pro Gly Pro 1130 Lys Gly Pro Ser Glu 1210 Ser	Pro Gly Glu 1119 Val Cly Pro Asn Lys 1199 Leu	Lys Ser 1100 Lys Asp Pro Val Gly 1180 Ile	Leu 1085 Lys Val Lys Glu Asn 1165 Pro Ala	1070 Gln Thr Gly Ile Asn 1150 Pro Val Lys Thr Gly	Pro Ile Glu Val 1135 Pro Asn His Glu Gly 1215 Ile	Gly Thr Gly 1120 Glu Glu Asn Ser 1200 Leu

**VERIFICATION SUMMARY** DATE: 09/01/2006

PATENT APPLICATION: US/10/590,579 TIME: 11:48:46

Input Set : A:\21491Y PCT.TXT

Output Set: N:\CRF4\09012006\J590579.raw

L:12 M:270 C: Current Application Number differs, Replaced Current Application No

L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date